Vision for the Iraq Health System

April, 2004

Iraq Ministry of Health

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I. Introduction

This document provides a vision for the Iraq health system that was arrived at through a consensus-oriented process of ten working groups and a Steering Committee over the period from October 2003 to January 2004. The working groups and the Steering Committee were convened by the Ministry of Health (MOH), composed of ministry leaders, representatives from all sectors of the health care system, and NGOs, with support from the CPA and staff of the IHSS project funded by USAID. Significant background research and options development work was available in the recent **Iraq Health Sector Report**[1].

The working groups[2] each met repeatedly to discuss problems and solutions in the health sector and to draft vision statements accordingly. Linkages meetings allowed each working group or health sector area to explain its perspectives to the others.

The resulting vision statements were discussed and approved by the Steering Committee with minor revisions (Section IV). A consolidated committee composed of working group leaders combined the various vision statements into the consolidated vision of the Iraqi health care system described in Section II.

The consolidated vision statement and the individual working group vision statements have been communicated more broadly to the population through a series of local health forums. The results of these local health forums have been compiled into a companion summary report.

II. Consolidated Vision

A. Features of an Ideal Future Health System for Iraq

The principal objective of the future health system is to assure that the health care needs of all Iraqi citizens are met with accessible, affordable, high quality services of the most appropriate type. This is a universal objective that can be accomplished through a variety of system designs.

The groups worked to find a way to reach this objective with a design that takes into account the short-and long-term situations of the health providers and the citizens of Iraq. The elements of this design have to be put into law through a revision of the public health laws.

The overall vision for Iraq aims to empower the people and the providers in the formal health system and give them more responsibilities. People will be given the power to

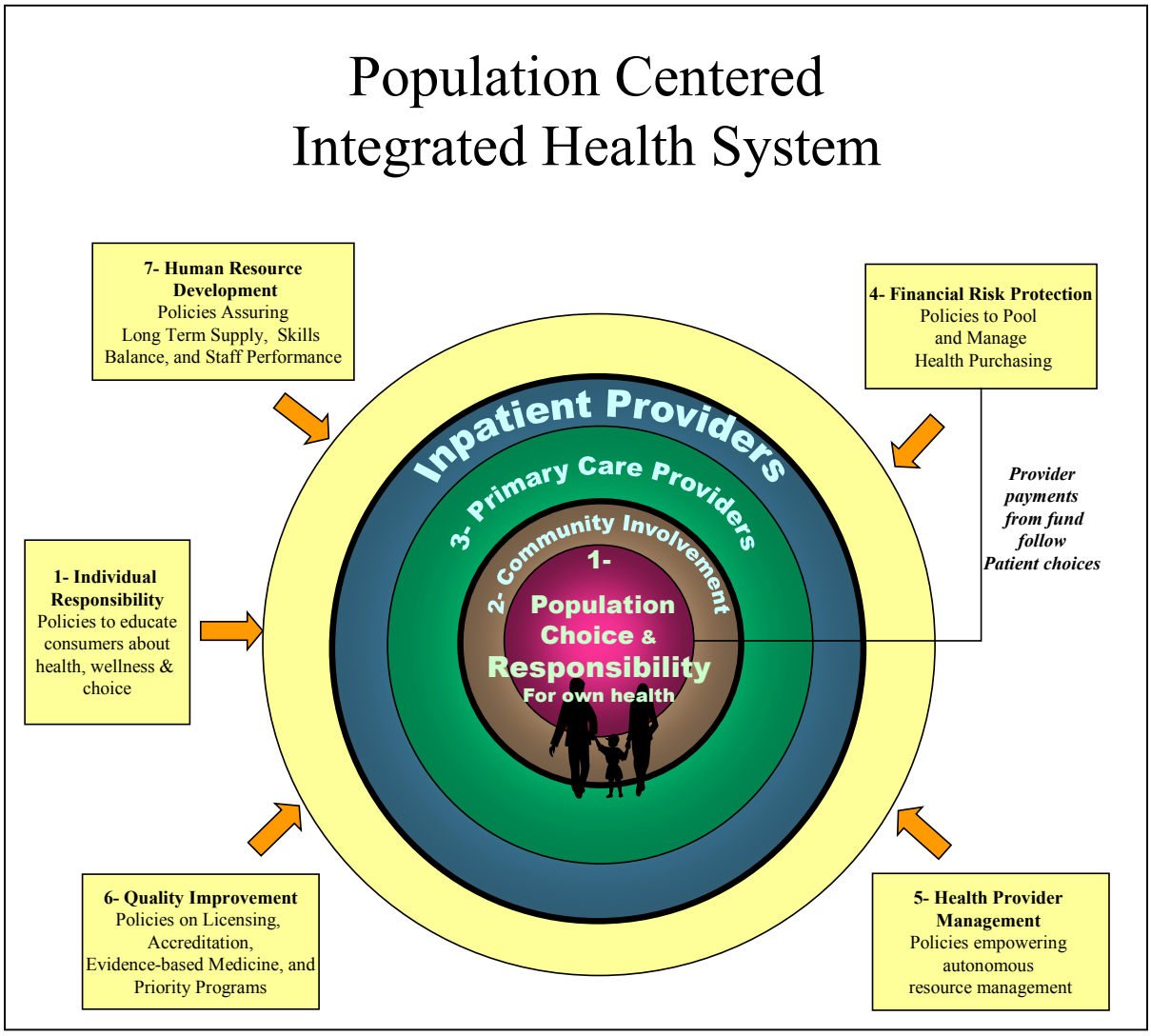
[1] **Iraq's Health Sector: Situation Assessment and Strategy Options**, MOH, CPA, UN Development Group, World Bank, and WHO, 3 October 2003.

[2] Working groups included the following: Public Health, Health Care Delivery; Health Finance; Health Information Systems and Technology; Pharmaceuticals and Equipment; Human Resources; Education and Training of Professionals; Licensing and Credentialing Legal and Regulatory; and Consolidated Working Group

choose their providers and payment will go to the providers the people pick. Those providers who are chosen will flourish and have more resources with which to work; those not chosen will have to adapt and improve their levels of quality and service if they want to attract patients. This will motivate health professionals to continuously improve their skills and performance.

Providers in the new system will be given more independence in managing their resources (staffing, drugs, supplies, equipment, etc.), but they will be responsible for practicing according to professional standards under strict quality control. They will have to respond to client concerns. This new system will ensure the provision of high quality services.

This overall vision is shown in the chart below. The new health system is people-centered. It gives citizens choice, makes them responsible for their own health, and moves them to the center of the system. In effect, they "pull" the system to them and increase both community involvement and the responsiveness of the system. The effects of this move to a people centered system are multiplied by other factors that "push" the system toward the people. The result is a combination of powerful forces that make people the main focus.



The seven core elements of health system reform for Iraq as portrayed in the vision chart are described below.

1. Population Empowerment with Patient Choice

The vision ensures **a health care system that gives the people informed and free choice of providers, with payment from the "financing pool" going to the providers that are selected.**

People will have choice to access health care from either public or private providers because the "financing pool" will have the ability to contract with both. People would then have the opportunity to enroll with the primary health care provider that they choose. During annual "open enrollment" periods, they would have the right to switch to different providers if the ones they picked first turned out to be unresponsive to their needs.

Networks will have to be established where the responsibility for referring patients to hospitals is given to the patients' primary providers. Patients would also have a say in choosing the hospitals to which they would be referred, with the concurrence of their primary care provider.

Both public and private providers would get paid from the state health pool based on pre-established rates and patient co-payment requirements.

This whole process would require that programs be designed to improve people's knowledge so they are able to make an informed choice when selecting health care providers that best meet their needs.

2. Community Involvement

The vision focuses on **connecting the health delivery system with the community and strengthening health promotion programs.**

Developing and sustaining the basic elements in the system will require involvement and support from the community. Empowering consumers by letting them choose which providers they use and enabling providers to manage resources will both require and encourage community leadership. Community-based organizations could have a role in public health promotion, wellness education, school-based programs and other efforts. Ways to link to democratic institutions, such as appointing community councils and boards to oversee public health facilities, may be needed to encourage the integration of local health needs with the resources of the larger health care system.

Community-based organizations (CBOs) and Non-Governmental Organizations (NGOs) could develop programs in the community that link up with health institutions to increase people's access to information.

An important health education issue is the appropriate use of drugs. The people need to know that taking more drugs is not necessarily better. They need to know what drugs are appropriate for common conditions and learn about the dangers of certain drug interactions.

3. Integrated Health Service Delivery System with Strengthened Primary Health Care

The vision ensures **a coordinated delivery system that features a strong primary health care sector from which all Iraqi citizens can choose providers who can deliver an integrated package of quality services, including: preventative care; maternal and child care, including reproductive health; medications; and other basic medical services**.

To make this happen, the Primary Health Care (PHC) centers and related professional services need to be strengthened to attract broader use. The centers should be motivated to promote wellness and to manage their patients' access to drugs and referral services. This is consistent with allowing people to choose their PHC providers where funds to providers follow these choices.

Primary care will have to include most of the ambulatory[3] services needed by the majority of the people. This means: wellness and preventive care; maternal and child health services, including reproductive health; school health programs; initial and follow up care for most acute illnesses; management of common chronic conditions; urgent care for minor trauma and stabilization and referrals to hospitals when necessary.

PHC will be strengthened even more through such things as: programs like Integrated Management of Childhood Illness (IMCI) or Safe Motherhood; introduction of family practice; retraining to enhance basic clinical skills; improvement of clinical practice guidelines; appropriate use of drugs; installation of quality improvement methods; and upgrading of health information systems. These will encourage PHC centers to make sure people are as healthy as possible, promote continuity of care, and provide high quality services if they want to keep their patients.

Hospital services have to be strengthened as well. Hospital departments that provide specialty services are valuable parts of the current system and therefore specialists who are attached to the hospitals need to have more training to upgrade their skills. Better clinical practice guidelines, quality improvement methods, and health information systems need to be introduced.

Disease surveillance, preventive medicine and mental health programs must be strengthened and integrated in the system.

The pharmaceutical sector, including the supply and quality of drugs, is a critical element for all the core areas. Iraq's drug storage and distribution systems have to be brought up to international standards. Pharmaceutical information systems and management processes need improvement. All drugs must be registered and the Drug Quality Control Laboratory needs to be upgraded. Drugs for the public sector should be purchased through a new, evidence-based formulary. Important policy issues such as market reforms and domestic drug production should be addressed.

[3] Ambulatory services are outpatient services, which do not require patients to stay overnight.

Quality testing should not be required for drugs and medical supplies that have already been certified by the appropriate body of the European Union or the United States Food and Drug Administration.

4. Financial Risk Protection (Equity)

The vision focuses on putting the **largest share of health funds in one state budget prepayment pool to increase equity[4] and financial risk protection[5] for all Iraqi citizens.**

In the "Auto-financing" system of the pre-conflict period, the primary source of funds to pay for health care was the pocket of the person who needed the services. This put the financial burden on sick people, who were often the least able to pay.

All state funds need to be pooled in one place or in one institution: a central national fund. Doing this would allow cross-subsidization[6] between the healthy and the sick and avoid putting the financing burden only on people who are most vulnerable. A decision about which institution the state funds should be pooled needs to be made; but in the short-term, it should be the MOH.

The institution where the state health funds are pooled would also serve as the health services purchaser. To have an improved health purchasing and payment system will require an integrated and significantly enhanced health information system that collects data from both public and private providers, while guarding the privacy of individuals.

Sources of health financing could be general revenue funds, employer payroll taxes, employee payroll taxes, special taxes and possibly, donor contributions. A small amount of financing would come from patient co-payments, which are less a source of revenue than a way to deter the overuse of health services.

It is not yet clear what decisions will be made about the level of overall financing, although as a percentage of Growth Domestic Product (GDP), it should be at a minimum consistent with that of neighboring countries. To increase financial risk protection, a high percentage of the funding should be prepayment, rather than coming from out-of-pocket sources at the point of using health services.

International experience shows that in government budget decision-making, health care often ends up at the bottom. Strict budgeting guidelines need to be put in place to prevent this from happening in Iraq. Specific health financing policies must be stipulated

[4] Equity is essentially about fairness, and implies that the most vulnerable and needy groups within a society require access to health care services and unless there is a mechanism by which access to good quality care for these groups is ensured, they will be disadvantaged by their limited ability to pay.

[5] Financial risk protection refers to the protection against the financial risk that takes place if payment for health care is at the event of illness, which is in many cases unpredictable.

[6] Cross-subsidization here means that the groups or communities with more resources subsidize health care for groups or communities with less resources. This could mean that some of the richer and/or healthier groups of the population pay into the system to cover some of the cost of treatment for those who are poorer and sicker.

in law. The drafting of new health laws is one of the most critical things that must take place.

5. Health Provider Management Autonomy (Efficiency)

The vision focuses on **a health care system where health care providers adapt appropriately to changes in local needs and manage their resources efficiently and effectively**.

The best way to achieve this is by allowing the "financing pool" to pay health providers according to the service they deliver within a basic benefit package. Those providers who do the most productive, high quality work will receive the most funding.

The provider payment system for PHC centers might adopt a capitation[7] system based on enrollment, meaning that the size of the budget at a particular center would be based on the number of people who enroll there. It would get a fixed payment every year for each enrollee. The total amount would be big enough to cover the projected costs of the resources that would be needed by the center to provide contracted primary care services.

Funds for drugs at the health institutions would be included in the capitation rate. Each individual facility, in turn, would then be able to order and pay for its own drugs. Doing this would encourage more appropriate prescribing patterns and put a market discipline on drug suppliers.

The payment system for hospitals would also be based on the number of services delivered. For example, the system would pay a hospital a set rate for each patient who received treatment, whether such care took place in a public or private facility.

Health facility managers would have the flexibility they need to manage their finances and to be able to shift resources within the limits of their funding level. Health purchasers would be responsible for determining if the care was appropriate and if the terms of the contract were met. Any surplus funds resulting from good economical management by the health provider could be kept by the facility and used in accordance with the terms of the contract.[8]

This approach of contracting with autonomous providers would encourage the efficient and responsible use of resources. It would require that the management skills of providers be strengthened and that both primary health care providers and hospitals are

[7] Capitation refers to payment per capita (which literally means "head"). In other words, it means payment per person enrolled. It is a form of payment for health care providers especially at the primary health care level.

[8] For example, if the enrollment in a PHC Center is 2,000 persons and the per person contracted amount of funding is 1,500, the annual budget would be 3,000,000. If total spending (salaries, transport, supplies, drugs, etc.) ends up at only 2,800,000, the facility would have a surplus of 200,000. This could be kept by the facility for future use, or be spent according to contract rules. These rules might allow the surplus funds to be used to award staff bonuses, to purchase equipment, to compensate for poor patients who are unable to pay user fees, or to be saved for use if budgets are exceeded in future years.

permitted to do autonomous banking, subject to auditing controls. In addition, an autonomous health provider would need improved health information and medical record systems to produce better data for management decision-making.

6. Quality Improvement

The vision focuses on a **health care system that ensures that all professional services meet minimum quality standards.**

All Iraqi health professionals and public and private facilities would have to be licensed. This licensing would be a state function and be located in an independent government entity. This body would contain representation from the MOH and other authorized agencies, such as the MOHE and professional associations.

A new independent organization should be established to ensure that health care professionals and facilities deliver a basic level of quality services. Over time, all health care facilities would have to be accredited by the independent body to qualify for payment from the "financing pool".

Individual health professionals should be certified based on recognized standards for their profession and satisfactory completion of required continuing education and skill development courses. Independent professional associations should award the certification.

Medical practice needs to be evidence-based and continuously improved under new clinical practice guidelines to maintain quality of patient care.

A variety of quality improvement processes should be introduced. Systems should be installed to provide better information. These should be designed to provide feedback and to function as the heart of the quality improvement program at the point of service. The relationship between public health and primary health care should be strengthened, and link to epidemiological data. This would help to develop and strengthen disease control and prevention programs at all levels.

Proper use and prescribing of drugs is critical to quality. All health professionals must focus on enforcing appropriate drug use. Although doctors are the ones who prescribe drugs, clinical pharmacists should play an important role in counselling patients and consulting with the doctors about proper drug prescription and use.

Finally, and importantly, significant financial investment is needed to **upgrade facility infrastructures and equipment** to give the hospitals and clinics the tools and environment they need to provide the kind of care people require.

7. Human Resources Supply and Development

The vision focuses on **a health care system that balances the supply of highly skilled and productive professionals with the projected needs of the population.**

Medical schools would remain within the Ministry of Higher Education (MOHE), with coordination of curriculum development with the MOH. In addition, a new, integrated,

multi-sector commission should be established to coordinate the distribution of professional training with anticipated needs.

The commission would coordinate and be an advocate for the education and training needs of the MOH, the MOHE and other bodies. It would conduct long-term workforce projections and ensure the appropriate distribution of medical schools, colleges, and technology institutes. It would accredit education programs and apply guidelines for admission and curriculum development. It would prepare and install a code of conduct or ethics. In addition, it would prepare annual assessments of any shortages in the supply of health workers and propose steps to eliminate them. Under the MOHE, applying standards developed by the commission, educational institutions would have the freedom to develop their own programs.

The priorities for physician education should be to emphasize family practice and strengthen the evidence-based and patient-centered focus. The priorities for nursing education should be to reduce the categories of nurses and raise the standards of nurse training to meet international standards.

Continuing medical education should be improved in cooperation with professional associations. For allied health, the priority would be to establish standards. Another extremely important priority is to upgrade the level of management education and training. There is a shortage of skilled hospital and clinic managers throughout the entire system in Iraq.

Teaching methods need to be improved. Educational institutions must be renovated and modernized, and the teaching materials have to be updated.

A number of other human resource functions need to be developed or improved. Job descriptions, scopes of work, and performance requirements have to be written or clarified. The ways in which health personnel are promoted and the salary structure under which they work should be transparent. An objective, standardized personnel evaluation system should be introduced to provide the basis on which outstanding performance can be rewarded. The majority of these personnel functions should be incorporated at the facility level as part of the overall increase in management autonomy.

Two significant human resource issues need particular attention. The first is shortage of adequate numbers of health professionals in rural and isolated regions. Meaningful incentives need to be put in place to attract personnel to work in these underserved areas. The second is the need to enhance the role of women in providing health services.

In summary, these core elements of the Iraqi health system vision are what will create and drive significant improvements in health care in the years ahead.

B. Implications of the Consolidated Vision

How will these changes in core system elements be viewed and experienced by the people of Iraq? For most, the major change will be more willingness and confidence on

their part to use the PHC center of their choice for a broad set of health conditions. They will begin to trust PHC center recommendations about drugs and referrals.

This will happen for a number of reasons, including a growing awareness that they are part of the process through their own choice. They will see improvements in the PHC center environment. The nurses and support staff will treat them with added respect and dignity. Information will be available to increase their knowledge about health-related topics. They will truly be involved in their own care and be able to participate in community health programs.

Providers will also see benefits under the new system. Hospital and clinic administrators will use their autonomy to manage their own resources. They have busier facilities and more satisfied staff members and patients. PHC centers and practitioners will have more prestige and see the scope of their practices expand. All nurses and other health professionals will have better tools. Support for medical practice and the incentives of the new system will provide tangible rewards for those who do more, and who do it better. They will see visible support for their work through the systems of continuing medical education, credentialing, and accreditation, all of which will focus on improving patient care.

This picture of a person's future experience might describe the vision for the Iraqi health system:

Zina was filled with joy when she learned she would be having a child. Earlier that year, she had exercised her right to free choice and enrolled in a PHC center where she liked all the health staff. Zina went to her PHC center, where the staff and the nurses greeted her courteously. While waiting for her appointment, she sat in the comfortable waiting room for about a half-hour looking at patient education materials and watching a video on nutrition. The physician was friendly and helpful, listening to her describe concerns she was having, examining her in a dignified way out of sight of other patients and staff, and carefully explaining to her what she should do to help ensure she has a healthy baby.

Zina returned a few more times during her pregnancy. Each time, she noticed that her record of prior visits was reviewed and issues were discussed with her. In addition, she was encouraged by the nurses and the staff to attend a new community health education program and to join a mothers group in her neighborhood.

When Zina knew it was time to deliver her baby, she went to the pre-designated hospital where despite some small complications during labor, the physician was able to deliver a healthy baby boy because she had access to appropriate equipment and medicine.

During her stay in the hospital, she was treated in a friendly and courteous way, given prompt attention by the nurses, trained in the basics of breastfeeding her baby, encouraged to see her doctor soon after discharge and to bring her baby to the clinic for a follow up examination.

III. Summary of Working Group Process

In August 2003, the MOH formed a Health Planning Steering Committee to discuss and develop key mechanisms for an appropriate health system in Iraq. The product of the deliberations was a document titled, "Iraq Healthy and Free" (Appendix A). That work recommended that working groups be formed, with representation by international donor organizations, NGOs, and other organizations, for each of nine functional areas in the health system. These working groups were directed to engage in a collective process to outline a vision for improving the health care system in Iraq for 2005 and beyond. There were working groups established for the following categories:

A. Public Health
B. Health Care Delivery
C. Pharmaceuticals, Medical Equipment and Supplies
D. Health Care Finance
E. Health Information Systems
F. Human Resources
G. Education and Training
H. Licensing and Credentialing
I. Legislation and Regulation

The working groups were given the primary objective of preparing specific vision statements pertaining to the various functional areas that would guide the strategy for the development of a new and improved health system in Iraq. A Steering Committee was appointed to provide technical guidance during the working group process.

To ensure that the various topical areas were discussed comprehensively, working group participants were carefully selected in a process that emphasized inclusiveness. The size of each group was restricted to between 12-15 members to facilitate discussions. Approximately 150 different individuals participated in the work meetings. The participants were selected from the following six categories:

A. Ministry of Health
B. CPA/MOH
C. Other ministries (intersectoral)
D. Iraqi Kurdistan Regional Government
E. Donors
F. Specialists in the related working group subject matter

It was determined early that the Legislation and Regulation Working Group would incorporate the relevant vision statements of the other eight working groups into a legal and regulatory framework.

Predefined Statements of Objectives, Areas of Responsibility, and a set of Tenets guided the deliberations. Each working group was given a defined objective that needed to be met to contribute to the "Iraq Healthy and Free" agenda. These objectives were articulated further by defining specific areas of responsibility for each working group.

Activities were also guided by a set of tenets, or principles (see Appendix B) distilled from the "Iraq Healthy and Free" document. These guided the discussions and the development of the vision statements.

At each meeting, the participants received take-home questionnaires that related to one or two of their respective areas of responsibility They were asked to submit their responses a few days before the next meeting.

The questionnaires asked three questions*:*

A. Where are we now? (Current Situation)
B. Where do we want to be? (Vision)
C. How do we get there? (Strategy)

The responses of all participants were collated into a single document and distributed for discussion at each meeting, along with the minutes of the previous session. A facilitator reviewed the syntheses, engaged the group in resolving any unclear statements and in discussing ideas from the surveys.

The nine working groups met a total of 40 times. Over 350 pages of responses to the initial Current Situation/Vision/Strategy questions (described above) were collected. The discussions yielded over 200 pages of minutes and synthesized notes. More than 45 separate technical documents were provided by staff to support consideration of international models and standards for health system strengthening.

These efforts provided the basis for developing the next phase of the working group process, the linkages meetings. The main purpose of the linkage meetings was to allow the working groups to share and disseminate their issues and ideas to the other working groups. The participants in each working group were asked to select some of their members to represent them in the linkage meetings.

The linkage sessions fostered exchange of ideas, and clarification, modification and refinement of various vision statement elements. Importantly, the meetings also revealed a number of recurrent themes: capacity building; empowerment; decentralization; information needs; intersectoral collaboration; and community participation.

IV. WORKING GROUP VISION STATEMENTS

PUBLIC HEALTH WORKING GROUP

- Emphasize above all the development of a robust primary health care (PHC) system centered on primary health centers and preventive activities, while strengthening general practice medicine for the short-term and developing a family physician model for the long-term.

- Develop and strengthen programs that address maternal and child health, mental health, and special needs, including services for the handicapped.

- Introduce population health outcomes into the primary health care model. The mission of public health is to elevate and improve the health of the Iraqi people.

- Integrate health services with development programs for economic, educational and environmental aspects.

- Develop and strengthen effective communicable disease control and prevention programs at all levels, making sure to link them with epidemiological data and their analysis.

- Develop and strengthen health promotion programs, stressing community involvement and education.

- Develop a medical information system (MIS) that includes patient records and comprehensive data analysis.

- Broaden and strengthen laboratory capabilities and integrate with care provision at all levels.

- Promote capacity building through training programs at all levels, facility and equipment enhancements, and assessments of post-program impacts.

- Establish comprehensive management training programs that address all levels of care from PHC to tertiary hospitals and that increase the system's capacity to properly manage facilities and programs.

- Establish programs aimed at the proper organization, utilization and training of nursing staff. These should include development of appropriate salary levels and job descriptions, proper supervision, appropriate monitoring and evaluation, licensure requirements, and continuing education and training courses.

- Incorporate effective and appropriate quality management approaches at all levels.

- Enhance the role of women in health services in areas such as leadership, management, supervision and training.

- Ensure that the needs of the more service users take precedence over concerns about the form and content of health services.

HEALTH CARE DELIVERY WORKING GROUP

- Ensure that the health care delivery system is people-centered, holistic and requirements based.

- Shift emphasis from a hospital model to more of a PHC model. Some of the PHC centers should be more advanced than the others in terms of sophisticated equipment and skilled nurses and staff. This would reduce the number of patients who bypass the centers and go directly to the hospitals instead.

- Establish strong participation by the community in the development of PHC services and in raising the quality of the services provided by the secondary and tertiary hospitals.

- Design and implement an effective and efficient referral system.

- Establish programs that promote capacity building of human resources, beginning at the PHC level, by addressing the need for doctors, nurses, midwives and other allied health professionals, without regard to gender.

- Develop strong management skills by implementing training programs at the hospital and PHC center levels, ensuring that they give women equal opportunities to participate.

- Develop a licensing and credentialing process for physicians, nurses, and allied health professionals to help standardize the quality of health care delivery.

- Ensure that health personnel and facilities are appropriately allocated, including outreach services, to provide broad coverage throughout the nation, especially in rural and underserved areas and for people with special needs.

- Based on accurate data, ensure the appropriate availability, distribution and allocation of consumable resources, such as drugs, vaccines, medical supplies and equipment.

- Establish a system of accountability for all health personnel through regular monitoring, evaluation, and performance assessments.

- Establish policies and systems that promote communication between departments and programs in the MOH and public and private health providers across all levels.

- Strengthen the performance of hospitals and PHC centers, emphasizing maternal and child health and mental health services, supported by a strong family physician program.

- Plan, develop and implement an effective nationwide emergency medical response system that is staffed by well-trained, well-equipped professionals, giving special attention to how the system responds to major disasters.

- Plan, develop and implement outreach services for isolated communities located throughout the nation.

- Ensure the provision of effective and efficient health services for pilgrims and visitors to holy shrines.

- Identify those programs, changes and improvements that will require new laws to implement.

- Develop and install policies to regulate dual practice by physicians and hospitals.

- Consider carefully issues involving the nature and role of the private sector.

PHARMACEUTICALS, MEDICAL SUPPLIES, AND EQUIPMENT WORKING GROUP

- Improve current clinical practice, which often consists of giving patients drugs rather than focusing on treatment and prevention. This will require managing both health professionals and the community, and fostering positive dialogue, collegiality and interaction between doctors and pharmacists.

- Enable clinical pharmacists to serve as consultants to the doctors and as counselors to the patients regarding drugs and their appropriate use.

- Address the bureaucratic nature of the process for acquiring equipment, drugs and supplies in the public system.

- Improve the storage and distribution system of drugs, medical supplies and equipment.

- Invest resources in vehicles, trained staff and security to protect the consignments of equipment, drugs and supplies.

- Establish an information system that tracks all shipments, deliveries and management of the inventories of equipment, drugs and supplies at the local level, and sends the information to a central national database.

    - Develop mechanisms to closely supervise and monitor all storage facilities, hospitals and pharmacies to track the status of the distribution of pharmaceuticals across the nation.
    - Intervene where necessary to ensure that pharmaceuticals are distributed equitably across the nation, based on community needs.

- Establish a new, evidence-based formulary that includes all the basic drugs and vaccines needed to meet clinical treatment requirements.

- Provide a basic list of those drugs that would always be available for the public sector. Regularly update the list with any new drugs registered by the MOH. Together with information standards, and based on recognized clinical guidelines,

the new formulary should indicate in rank order which drugs and vaccines would be the best therapeutic choices for treating and preventing the most prevalent diseases.

- Ensure that the Quality Control Laboratory is well equipped with both human and material resources to expedite the clinical, ecological and environmental testing processes.

- Eliminate the unnecessary steps currently required for obtaining drug importation licenses, while preserving the mandate that "the drug must be registered". Quality testing should not be required for drugs or medical supplies that have been certified by the European Union (EU) or the United States Food and Drug Administration (FDA).

- Require private retail pharmacies to obtain their drug inventories from private wholesalers.

- Consider the national introduction of free market principles into the pharmaceutical "industry".

- Ensure that the physical condition, equipment, systems, management and staff of the pharmaceutical warehouses in the public and private sectors meet recognized GMP standards. Expired medicines, especially, should be stored and monitored appropriately.

- Develop a co-payment policy for drugs that does not restrict access to medicine for people in need.

- Introduce an electronic system to track patient prescription histories and medication charges.

- Design and approve a process for monitoring the movement of drugs to prevent their transfer from public health care facilities to neighboring countries or to the private sector in Iraq.

- Develop a collaborative patient diagnosis and prescription system so that drugs are not given in combinations that interact detrimentally on the patient. Although the doctor is the one who writes the prescription, the pharmacist should check the patient's history on the computer.

- Establish drug and therapeutics committees made up of doctors, pharmacists and nurses at each hospital and PHC center.

- Enforce regulations throughout the health care system to minimize negative practices. Install sanctions for breaking the rules, including loss of license to practice, suspension and fines.

- Consider the use of mobile laboratories, clinics and pharmacies to respond to needs for health care services in rural and isolated areas.

- Develop mechanisms to conduct needs assessments using data gathered on disease prevalence and chronic and infectious diseases.

- Develop a process in hospitals and clinics to permit access to drugs only by authorized people who would be held accountable for their distribution.

- Set the selling price of supplies sold by the MOH to the private sector at fair market level

HEALTH FINANCE WORKING GROUP

The strategies for healthcare finance include both long-term and short-term objectives as outlined below:

Long-Term:

Financing the health care system:

- Ensure that appropriate levels of financing for the health sector are included whenever the government prepares its budgets.

- Develop financing guidelines that include the creation of a national health fund through which health services are financed by contributions to the fund. The sources should include payroll deductions, with both employer and employee paying a mandatory percentage of salaries. Other sources of money would be identified.

- Design the health fund should be independent of government, but work within a tightly regulated framework.

- Ensure that premiums are linked to the average cost of treatment for the group as a whole, not to the expected cost of care for an individual, to create cross-subsidies from healthy people to those who are less healthy.

- Ensure that the level of overall health care financing is realistic and that it meets the needs of the system.

- Specify the sources of finance that will contribute to the health fund

- Design a finance system characterized by centralized funding and decentralized budgeting.

Paying health care providers:

- Develop an appropriate payment model that is based on contractual agreements between the health fund and individual hospitals and PHC centers.

- Establish a system where the health fund pays providers for delivering defined packages of basic services. Determination of the composition of these packages should draw on the experiences of other countries.

- Develop a system that allows the health fund to contract with private providers using consistent and equitable terms. “Dual practice” by both doctors and hospitals should be regulated.

- Empower the primary health care level to act as a “gate-keeper” for access to other levels of care to ensure that resources are not spent inappropriately on expensive, advanced care. Provider payment systems should be designed to enable primary care providers to play this role.

- Ensure that the health fund contracts only with licensed, accredited providers.

User fee policies:

- Develop strong user fee policies based on the actual cost of delivering services to deter over-use. User fees would not be a major funding source because the financing model is focused on pre-payment, not payment at the point of service.

- Design and install exemption policies in the system to make sure that no one is prevented from receiving care because of an inability to pay the user fees.

- Ensure that public health and preventive health care services are delivered free at the point of use.

Information to develop the system:

- Develop strong data acquisition and analysis programs that link clinical information with financial and management data so that the actual cost of providing services can be determined accurately.

- Monitor the health care financing system by mapping the flows of money, perhaps as a National Health Accounts type of exercise.

Issues for consideration:

- Define the roles and responsibilities of various current and future health sector institutions, such as the MOH and the governorate offices, in regard to services, financing, and regulation.

- Develop a pathway that shows what has to be done to move from the current situation to the system that the vision proposes. The pathway should be divided into phases that take realistic time considerations into account.

- Consider carefully the possibility of introducing private health insurance into the system.

Short-Term:

- Develop performance-based compensation policies for providers.

- Develop policies that motivate professionals to serve in rural and underserved areas.

HEALTH INFORMATION SYSTEMS AND INFORMATION TECHNOLOGY WORKING GROUP

- Develop an integrated, interactive health information system that covers both the public and private sectors. It should be able to track actions that are taken and report the results.

- Establish a centralized MOH Health Information Center (HIC), with satellite facilities located throughout the nation to maximize access. The recommended option is to use the Department of Health and Vital Statistics for this purpose.

- Ensure that the HIC makes health and financial information broadly available through the use of the latest technologies. Develop a website for the MOH.

- Develop a system that promotes accurate, timely, and comprehensive information collection and allows:
  - Evaluation and assessment
  - Monitoring of employee compensation levels
  - Reduction of the paperwork load
  - Data analysis at each level of the system.
  - Determining the adequacy of the data and the reporting mechanisms.

- Ensure that a medical record (first manual, then electronic) is generated and maintained at the PHC level for each citizen from birth, or when he or she first enters the system.

- Establish polices and procedures, based on the experiences of other countries, that ensure that access to personal medical information is controlled by regulations that protect privacy.

- Ensure that aggregated medical information is available and accessible in a way that does not violate privacy laws and regulations.

- Encourage the use of digital technology in the governorates, districts and facilities.

- Implement an effective training component for users of the information system.

- Collect data from the private sector. What is gathered would depend on the nature of the health system that is in place in the future. However, at a minimum, information about cancer and communicable diseases should be reported.

HUMAN RESOURCES WORKING GROUP

- Develop clearly written job descriptions and scopes of work that specify what qualifications, duties and responsibilities are required for each position. This would improve future efforts to recruit, select and place appropriate people throughout the nation based on merit, without discrimination due to gender, ethnicity, age or religion.

- Craft legislation to ensure the appropriate distribution and utilization of personnel.

- Develop education and training programs to build human resource capacity based on the needs of the health system.

- Exercise caution when deciding from which countries foreign health workers can be recruited.

- Develop equitable compensation and incentive policies and programs that provide appropriate salaries, professional job satisfaction, and recognition for all health professionals.

- Build closer collaboration between the MOH and Ministry of Higher Education (MOHE) to standardize the ways in which men and women are trained, coordinate the development of curricula, and empower the MOH to influence health education programs to produce the desired mix of qualified personnel.

- Strengthen and professionalize the roles of nurses, allied health workers and management personnel.

- Develop appropriate national staffing standards and norms for health facilities and project personnel requirements for the next five years, with an emphasis on nursing. Collaborate with the MOHE on capacity building, especially regarding new job categories, such as community nursing and social work.

- Ensure that human resource matters are included as integral parts of overall strategic planning for health.

- Encourage the training of professional women for leadership positions in the health system to improve their opportunities to fill key positions at all levels.

- Make use of the many experienced retired nurses and doctors who are willing to return to work in the health system.

EDUCATION AND TRAINING WORKING GROUP

- Apply clear, consistent and standardized admissions and graduation requirements to all health-related educational programs.

- Use independent organizations to help develop and implement a licensing and credentialing system.

- Install strict international accreditation standards to all training and educational institutions.

- Decentralize disciplines such as finance and curriculum development in all university-level systems.

- Ensure that university hospitals are independent entities both for teaching and as significant parts of the referral network. They should be connected organizationally to the medical and nursing schools and not be directly under the MOHE.

- Place medical and nursing school curricula development under the supervision of the Ministry of Health.

- Attach the nursing schools to university hospitals to provide the students a setting for gaining practical patient care and clinical experience.

- Reassess and standardize the existing nursing curricula and develop a new strategy for educating, training and licensing nurses. Reduce the current nursing levels from five to three.

- Create new post-graduate tracks for baccalaureate degree nurses who want additional training to become specialty nurses.

- Develop monitoring mechanisms to allow the work of all nurses to be regularly evaluated.

- Establish graduate level hospital and health care administration programs and place trained health care management professionals into hospital director positions.

- Develop and enforce standardized professional requirements for continuing education (CE) and promote the development of strong CE programs. Link the scores on the CE examinations to license renewals for doctors and nurses.

- Establish a fully equipped training center for laboratory technicians and replace the laboratory assistants program with a more rigorous course of training.

- Develop training programs to produce a sufficient number of qualified paramedics who are credentialed under accepted international standards.

- Establish two-year post-graduate programs for midwifery.

- Establish a coordinating role for the MOH in research to guarantee relevance and ensure adherence to ethical guidelines.

- Build strong research components to support the improvement of health education, training and service.

- Develop the flexibility to allow the system respond to new and innovative training and educational programs.

- Establish strong collaborative relationships between the MOH, the MOHE, and other institutions.

- Develop international faculty and student development programs, while ensuring that higher medical education takes place in Iraq, not somewhere else outside the nation.

- Develop and implement post-training evaluation mechanisms for continuing and in-service education.

- Utilize electronic information technology and forms of telemedicine for health care training, continuing education and research. Provide up-to-date educational materials and access to online information.

- Ensure that resources are made available to support broad training and educational needs.

- Consider establishing a centralized training and research institute within the MOH, with satellite branches in other parts of Iraq, to reduce duplication, improve coordination, and provide direction. The current Training and Development Center could be strengthened to take on this role.

- Create a new, independent commission to oversee the training of doctors, nurses, and other health professionals.

- Emphasize strongly the imperatives of truthfulness and ethical behavior on the part of students, faculty, and health professionals.

LICENSING AND CREDENTIALING OF HEALTHCARE PROFESSIONALS WORKING GROUP

- Ensure that a new licensing and credentialing system is applied to both the public and private sectors under a common set of standards.

- Make sure that licensing renewal is linked to and dependent on the successful fulfilment of continuing education requirements.

- Create an independent Iraqi Medical Council to oversee all licensing and credentialing activities.

- Clearly define the roles of professional associations.

- Develop appropriate qualification requirements for the credentialing and licensure of physicians, nurses and allied health professionals, with the potential for de-classification and/or license revocation for failure to meet the requirements.

- Establish required standards for nursing licensure and certification and gradually replace school nurses with those who have graduated from the nursing institutes and colleges.

- Strengthen and coordinate the roles of the MOH and the MOHE in professional credentialing. Study the ways in which other countries have dealt with procedural, functional and system issues.

Issues for consideration:

- Define the potential role and membership of a new, independent Iraqi Medical Council

- Evaluate the applicability of applying a credentialing system, as known in the United States and Canada, to Iraq.

APPENDIX A: IRAQ HEALTH AND FREE

Ministry of Health, Iraq

Health Planning Steering Committee

Areas of Responsibilities for Working Groups

"IRAQ HEALTHY AND FREE"

1. PUBLIC HEALTH

Outcome: Establishment of the principles and processes by which the peoples of Iraq can reach their optimal level of overall health, through development of benchmarks for health outcomes, ensuring meaningful health promotion to the community and by defining those public health tasks and targets that can reduce inequalities and produce the greatest health gains in diverse communities.

Areas of Responsibility:

- Develop a decentralized system of public health delivery, with central standards setting and monitoring.
- Quantify the range of significant preventable diseases, both communicable and non-communicable, that impact Iraqis of all ages; identify their causes and the most cost-effective interventions to tackle them
- Through review of Iraqi experience, as well as experiences from other countries, assess models for effective health promotion and healthy lifestyles (including the use of public information systems and media) that can be targeted to members of diverse populations.
- Develop specific public health tasks and targets that should include everything from immunizations to water quality testing, to the extent that these efforts can produce meaningful health improvements at an acceptable level of costs.
- Identify and place a special emphasis on programs and tasks targeted to women, infants and children, due to their exceedingly poor relative health outcomes.
- Explore the development of family physician system that can provide all range of health and healthcare intervention to those registered with them. Encourage the highest percentage of registration.
- Identify and categorize all freestanding laboratories. Concurrently, an assessment of the condition, capabilities and supportability of these labs should occur and recommendations regarding restoration, consolidation, elimination, or new construction should be made.

2. HEALTH CARE DELIVERY SYSTEM

Outcome: Production of a model for the evolution of a health care system, where the authority, decision making, accountability and standard setting are shared from bottom to top and is markedly responsive to the needs and wants of all the peoples of Iraq, while remaining cognizant of economic realities, aiming at equity, accessibility affordability and quality of all services, including a basic service package that should immediately be available to all.

Areas of Responsibility:

- Identification of every hospital, primary health care clinic and other treatment resources by exact location, types of services provided, listed capacity and actual utilization.
- Development of a quantifiable decision matrix for the purpose of identifying which facilities should be closed, "right sized", or new ones built. Setting standards for demographics per type of facility. Such a matrix must include variables related to current and future estimates of population SES and demographics. This process should also include a means of determining the numbers and locations of specialty care and referral hospitals
- Provide recommendations on which categories of persons should receive health care services at no, or nominal costs, defining which basic services should be delivered on what level of accessibility.
- Define the different specific managerial roles and functions for a decentralized health care system - in the districts, the governorates and at national level.
- Produce one or two health care delivery models that provide the best mix of primary/preventive care with reasonable access to hospitals and tertiary care facilities as required, in a way that is adapted to the needs of different governorates
- Establish a framework for reinforcing interactions between government and private entities on health issues. .
- Explore models that enhance community participation and decision-making in the management of their health care system, including the operation of their local clinics and hospitals.
- Define the time lines of change, which interventions should be part of the short term intervention process to rapidly improve the system and which ones of the longer-term process focusing on providing lasting improvements to the system.

3. HEALTH CARE FINANCING

Outcome: Production of an optimal, equitable health care financing model, taking into account expected public revenue, per capita income and income distribution, which will also maximize the opportunities for the Iraq health care system to evolve over time, ensuring a minimum services package.

Areas of Responsibility:

- Investigate the current costs of health care in Iraq and understand how it is currently financed.
- Review health care delivery systems of countries with similar SES characteristics.
- Develop estimates of revenue from direct patient payments and public funds.
- Identify all possible funding streams that may be used to support this system.
- Provide projections of future costs given possible changes in population statistics.
- Establish a systematic process of transition to the health care system generated from this process and for future health reforms if needed.
- Ensure there is a link between planning and budgeting according to a clear set of core policy objectives as defined by the Steering Committee.

4. HEALTH INFORMATION SYSTEMS AND TECHNOLOGY

Outcome: Establishment of the principles, standards, and process that will provide for the effective collection of reliable health information that will form decisions at each level

of the health care system to improve the health of Iraqis and their system and quality of health care delivery.

Areas of Responsibility:

- Review the existing system and define the protocols and data elements that will be collected and submitted routinely by different sectors of the health care system: clinics, hospitals, laboratories, vital statistics registrars, pharmacies etc: map different health facilities used both by government and health partners.
- Promote the accurate recording of health information and statistics by health professionals at all levels of the health care delivery system.
- Recommend surveys that will provide more detailed information on individual health status, knowledge, attitudes and practices of the public, and risk factors for adverse outcomes.
- Establish procedures for data release that preserve privacy but allow access to data elements necessary for additional analyses by MOH or for valid research
- Define a series of routine, public reports that provide ongoing measures of population health and the effectiveness of health care delivery.
- Establish the Ministry of Health as the primary source of information about health in Iraq with its own analytical capacity and web site for making information available.
- Consider the variables that could be used to assess the performance of the health sector in the new Iraq – including outcome (morbidity and mortality), output (facilities operational, capacity in place etc) and activity variables.
- Establish a means to determine best methods of information technology in the short and long term – methods which draw on the needs and interests of both clients and information providers.

5. PHARMACEUTICALS, MEDICAL SUPPLIES AND EQUIPMENT

Outcome: A definitive proposal to modernize the purchase, storage and distribution process of pharmaceuticals and medical supplies, which will include policies to ensure the appropriate use of pharmaceuticals and medical technology by the Iraqi people.

Areas of Responsibility:

- Investigate prior and current utilization of pharmaceuticals by the Iraqi populace with special attention given to the appropriateness of medicinal use.
- Explore and develop a co-payment policy, consistent with current SES indicators, to establish reasonable utilization controls.
- Establish a formulary for the public sector to maximize cost savings while still providing a reasonable clinical choice of drug categories and range of drugs.
- Develop a corporate strategy for the procurement of pharmaceuticals.
- Restructure the supply chain management system for the efficient and effective delivery of pharmaceuticals and medical supplies and equipment.
- Explore the feasibility of modernizing medical supply systems given current assets and provide a detailed action plan for implementation.
- Explore various means of supply to the private market other then supply through the federal system.
- Develop proposals to establish a certification process for medicines and other associated supplies, together with a medicine quality control mechanism - and its supervision.
- Develop a policy for the standardization of equipment.

6. EDUCATION AND TRAINING OF HEALTH PROFESSIONALS

Outcome: Health care and allied personnel education and training curricula that will better enable health care providers meet the vision, management and clinical objectives of the future Iraqi health care delivery system.

Areas of Responsibility:

- Identify the current status (physical structure and geographic distribution as related to population) of all health care related educational schools and training facilities.
- Review and critically evaluate the admission requirements (and examine for biases – e.g. on gender), curricula, teaching and assessment methods (labs, computers, etc.) for all education programs.
- Provide recommendations for needed additional educational programs, teaching facility/research facility/training center refurbishment, equipment replacement, curricula modification and changes in teaching methods, with the aim of graduating health professionals capable of meeting world recognized standards (include management skills development for health sector personnel).
- Develop mechanisms and standards for Continuing Medical Education/Professional Development, including an effective crediting system for health care professionals.
- Determine the need and feasibility of establishing additional health care professional programs (e.g. OT/PT, Graduate Psychology, Health Administration, Medical Ethics, etc.).
- Establish an accreditation system for health professions education programs to meet global challenges.
- Review the standards for faculty enrollment and advancement in health professional education.

7. HUMAN RESOURCES

Outcome: Establishment of the parameters for all of Iraq to identify the numbers, types and geographic distribution of licensed medical personnel, allied health professionals and administrative staff employed within and outside MOH using a 10-year time horizon.

Areas of Responsibility:

- Establish capacity for strategic analysis and forward planning for human resources development in Iraq's health sector, with particular attention to recruitment and retention of staff, especially nurses, and maintaining the quality of professionals, taking on board the changing needs for different kinds of specialist and generalist personnel, as well as the experience of different governorates.
- Consider options for ensuring greater equity in the geographical distribution of Iraq's health personnel.
- Consider options for ensuring that critical personnel – e.g. managers – are accorded the correct recognition and status.
- Undertake a statistically valid survey to identify, by category, age, type, qualification & location, all health care professionals, allied personnel and MOH administrative staff; try also to get some assessment of the professional skills and practice of these personnel.

- Review current and projected population demographics and personal income growth with the view of projecting needed medically related human resources now and into the future.
- If mal-distribution of type or location of personnel is found, determine the cause and provide recommendations for corrective action.

8. CREDENTIALING AND LICENSING OF HEALTH PROFESSIONALS

Outcome: Identification, of types of medically related personnel credentialed or licensed, standards used, and the process of credentialing and licensing.

Areas of Responsibility:

- Review the current process for continuing education of health personnel, including credentialing and licensing of medical personnel including the identification, and if necessary, modification of existing laws and regulations related to the issue.
- Define the criteria or standards necessary for credentialing, licensing and re-licensing.
- Determine if credentialing, licensing and re-licensing should be phased in over time and if selected types of personnel should be "grand-fathered" into this new system.

9. LEGISLATION AND REGULATION

Outcome: Recommendation of all necessary legislative, regulation and policy changes that will be needed to implement the Ministry of Health's proposal for an "Iraq Healthy and Free".

Areas of Responsibility:

- Review all national laws regarding health care and make recommendations for the repeal or amendment of existing legislation, or the enactment of new legislation, as may be necessary to meet the goals of this proposal.
- Investigate the regulation/rule making process, as well as, the actual regulations and rules, and make recommendations of changes that should be made in process and substance.
- Finally, develop a policy making process for the MOH that will lead to a rapid turn around of the decision making process, while still maintaining the level of accountability necessary to effectively manage this new health care system.

APPENDIX B: WORKING GROUP TENETS

Health Sector Functions, Institutional Structure, Roles and Relationships

1. The health system should be decentralized. Generally:
   - Centralize the health financing function.
   - Decentralize the health management functions by granting more autonomy to providers, increasing the roles of local government, and establishing community boards for health providers.

2. The size of the MOH should not increase.

3. The MOH should largely retain policy, regulation, and finance functions, while delegating some functions to other health institutions to increase transparency and efficiency.

Health Finance

4. The level of financing as a percent of GDP should be consistent with that of neighboring countries. There should be a high degree of prepayment used, instead of out-of-pocket funding, to increase financial risk protection.

5. The source of financing should initially be general revenue budget funds, although health insurance may emerge after the new health system matures.

6. All Iraqi citizens should be entitled to equitable coverage under a basic benefit package funded from a public pool of funds. Everyone, except a few exempt categories, would make some type of co-payment when receiving services.

7. Resource allocation and provider payment systems should be based on payment for health services (outputs), not health system physical infrastructure (inputs) They should grant greater provider autonomy, encourage competition, increase efficiency, allow providers to reinvest savings, and enhance patient choice.

8. The type of health provider ownership should not be a consideration in health financing. Public money should be able to be paid to private facilities and private money could be paid to public facilities. This would allow a seamless, blended health delivery system to develop. In the long-term, public facilities should not subsidize private facilities.

9. There should be a standard salary schedule during the next few years. For the long-term, a flexible civil service system should be established to allow public facilities to deliver services effectively and to compete with private facilities.

Health Care Delivery

10. Health care delivery must shift from a curative model to one that gives first priority to primary health care and public health services. They should be

strengthened and effectively linked to increase cost-effectiveness and improve access to basic health services.

11. There is excess capacity in the hospital sector that needs to be corrected. General hospitals should be given a higher priority than specialized hospitals.

12. The MOH should establish standards and specifications relating to new capital investment, both facilities and equipment.

Pharmaceuticals

13. All drugs purchased with public money should be based on a formulary.

14. Private retail drug stores should buy from private pharmaceutical wholesalers.

15. Drug quality testing should not be needed for drugs or medical supplies certified by the European Union (EU) or the United States Food and Drug Administration (FDA).

Health Information Systems and Technology

16. A standard national health information system should be used for routine data submitted to the MOH.

Medical Education and Human Resources

17. Medical Schools should remain under the Ministry of Higher Education, but the MOH should be given more autonomy in the design of health-related aspects, including curriculum development, pedagogy, and continuing medical education. All medical education degree programs must be accredited.

18. A medical primary care specialty should be developed (general practitioner or family practitioner) with status equal to that of other medical and surgical specialties.

19. The development of nursing and other allied health professionals should be expanded and enhanced.

20. The content of medical practice, education, and training should be based on evidence.

Licensing and Credentialing

21. Licensing should be done by a state agency other than the MOH.

22. A credentialing system should be instituted for doctors, nurses, and allied health professionals. Administration of the system should be delegated to professional associations.

Population

23. The population should be involved in health education and in any decisions made about their health care. It should be a priority to increase the knowledge of all the people about health-related subjects.